

Evaluation on the Mastery of Music Rhythm in the Singing of Chinese National Vocal Music Works

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Abstract: Vocal music is an art form. Its emergence and development cannot be separated from social environment and historical factors. As a unique cultural phenomenon, Chinese folk music has different styles in different regions, so it is of great significance to study it. In the process of vocal music learning, rhythm is a crucial part. Therefore, this paper has conducted an in-depth study on the mastery of music rhythm. This paper mainly used the methods of questionnaire and interview to investigate the methods of mastering the rhythm of national vocal music. According to the survey data, 49% of people believed that developing a sharp sense of rhythm is the ultimate goal of rhythm training. Therefore, it is necessary to improve the training method of vocal music rhythm from the aspect of rhythm and motion.

1. Introduction

Chinese national vocal music works are formed through the continuous development of thousands of years in the life of people of all ethnic groups, including many excellent traditional cultures. It reflects people's most sincere feelings for a better life and the spiritual world. This paper analyzes and studies the three elements of singing rhythm, singing strength and timbre to understand the relationship between them. In the creation of vocal music works, it is not only necessary to grasp the ideological content and spiritual connotation of the song, but also to grasp the rhythm of music, so as to effectively convey the soul of vocal music.

There are many theories about studying Chinese vocal music and mastering methods of music rhythm. For example, some experts have studied the artistic characteristics, singing style and artistic processing methods of the national opera based on the analysis of the vocal works of the Chinese national opera [1-2]. Other scholars believe that the national characteristics embodied in excellent Chinese vocal music works are reflected in the national language and national music used in the creation of works [3-4]. Other experts believe that rhythm is one of the basic elements of music and a skill that music learners must master [5-6]. In Chinese national vocal music works, the use of music rhythm is important. The music rhythm controls and regulates the emotions expressed in the songs, and reflects the emotions in the music works through different forms of changes.

This paper first studies Chinese national vocal music, and briefly analyzes the rhythm of national vocal music. Secondly, in order to improve the accuracy of mastering the rhythm of vocal music, with the help of modern technology, the music rhythm recognition system is designed to improve the efficiency of rhythm teaching. Then the training methods of music rhythm sense are investigated. Finally, relevant conclusions are drawn through the data statistics of the questionnaire.

2. Mastering the Music Rhythm of Chinese National Vocal Music Works

2.1 Chinese National Vocal Music

Chinese national vocal music works take songs as the main content and combine with other forms of singing to express an emotion. It can be said that it deduces various styles in different historical periods. National vocal music is an art form with unique aesthetic value and cultural connotation. There are many styles of Chinese national vocal music works. When singing, they mostly use the techniques of flat tone and strong tonality to express the song content and emotional expression, thus forming a unique form of folk song tunes. In vocal music teaching, the study of national music can help students better grasp and understand Chinese traditional culture and artistic characteristics.

When singing a national vocal music work, it is very important to grasp the rhythm, because only by mastering the speed and strength can people better play the emotion contained in the song [7]. When learning national vocal music works, people should learn how to correctly understand and grasp the rhythm of the works, because only by mastering the basic sound patterns such as beat and scale can people accurately express a song. In the singing of Chinese national vocal music, the use of music rhythm and beat is complementary and indispensable. The music melody and emotion in the works are the most direct and effective way to reflect the emotion and connotation of songs. The composer obtained a relatively correct and complete understanding after analyzing and studying the tunes and lyrics of national vocal music works. This understanding is not only reflected in the singer, but also reflected in the deep emotional changes felt during the singing process [8].

In the singing process of vocal music works, people can understand how national vocal music songs are formed by analyzing music and singing thinking. When creating works, vocal singers express the connotation of the song according to their associations with the melody, style and lyrics of the song. The creation of national vocal music works needs to follow certain principles and order. The artistic style of national vocal music works is determined by its own personality, temperament and personality [9]. The melody of national vocal music works is determined by different styles, sizes and lengths, while the artistic style would directly affect the overall rhythm of the song.

2.2 Music Rhythm Recognition System

In order to better grasp the rhythm of national music, this paper develops a rhythm recognition system. The overall structure of the system is shown in Figure 1:

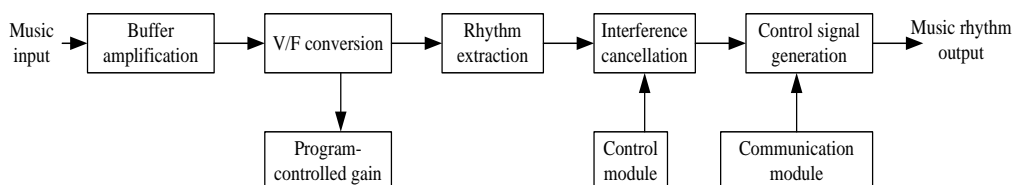


Figure 1: Music rhythm recognition system

In order to meet different application requirements, the action parameters of the actuator must be adjusted separately. If the signal is amplified without distortion and sent directly to the V/F conversion circuit, the integral of the signal in one cycle is zero, and the conversion frequency cannot correctly reproduce the amplitude change of the input signal [10]. Therefore, it is necessary to rectify the signal before it enters the V/F conversion circuit. The gain circuit works in the state of deep negative feedback, and the gain factor can be approximately expressed as:

$$X_v = \frac{Z_{d2}}{Z_{f2}} \quad (1)$$

The charge time of capacitor R is s_1 and the discharge time is s_2 . According to the charge balance principle during charge and discharge, it can be concluded that:

$$(L_z - \frac{Y}{Z})s_1 = s_2 \frac{Y}{Z} \quad (2)$$

Because there are:

$$g_0 = \frac{1}{s_1 + s_2} \quad (3)$$

Therefore, the conversion formula of g_0 is:

$$g_0 = \frac{Y}{ZL_z s_1} \quad (4)$$

The output frequency of conversion module V/F and the stability of the system are considered. If the system restarts or shuts down suddenly, all system data would be lost. When the user performs gain control again, the gain or decrease processing is placed in an unordered state without the final gain information. Therefore, it is necessary to place the information related to each gain control in the external storage device [11-12]. The software system is based on the hardware platform and uses the resources provided by the hardware system to process the audio signal processed by the hardware system.

3. Investigation on Training Methods of Music Rhythm Sense

3.1 Exploration of Music Rhythm

To some extent, rhythm is the most creative part of music performance. Through sensory understanding and rational analysis of music rhythm movement, more detailed aesthetic experience is obtained [13-14]. The diversity of rhythm duration and tonal density, the irregularity of uniform and uneven distribution of rhythm, and the musical tension generated by the interweaving of different types of rhythm are the driving factors. The function of rhythm plays an important role in the formation and expression of music image. As an objective existence, music rhythm can be regarded as a metaphor of certain musical thoughts. His different understanding and experience of rhythm also gave him a distinctive personality. The continuous development of music has also met all kinds of human needs. Rhythm plays a role in human psychology, and it is not independent of human physiological structure [15]. It also plays a positive role in the balanced development of body and mind. People can make full use of the role of this rhythm, properly participate in music

activities between work and study, and rotate the brain left and right to effectively improve the efficiency of work and study.

Speed is the first element of rhythm. Music protest is essentially the frequency of the beat [16]. On the one hand, a good sense of rhythm is conducive to fast and accurate solfeggio and dictation, while practicing solfeggio and dictation can in turn develop some musical skills, such as intonation, rhythm, mode and tone, music memory, etc. [17-18]. On the other hand, promoting the development of sensitive auditory analysis skills is also inseparable from rhythm culture. They are complementary and closely related. In short, it is very important to cultivate students' music listening.

Creating an accurate and stable sense of rhythm is the main task of rhythm training. Rhythm training is also inseparable from cultivating a stable sense of speed. In order to cultivate a stable sense of speed, people can use the human physiological rhythm or use a metronome to set a certain speed [19]. According to a certain law, the sequential combination of the same or different time values of musical notes forms the relationship organization of the time values of musical rhythm notes. The sense of rhythm plays an important role in the formation of music rhythm. Therefore, full consideration should be given to rhythm training.

3.2 Investigation on Music Rhythm of National Vocal Music

In order to deeply analyze the characteristics of China's national vocal music and master the rhythm of national vocal music, this paper specifically investigated the students and teachers of national vocal music colleges. In this paper, the answers to the questionnaire were divided into three levels, S, A and B. The questions involved in this questionnaire and interview include the following aspects:

The first is to understand the status and role of national vocal music. The survey is conducted from the following aspects: the preference of national vocal music, the number of people studying national vocal music, and the audience class of national vocal music.

Secondly, the functional role of music rhythm is investigated. According to the function, it is mainly divided into dynamic, modeling, style, balanced development of body and mind and intellectual development.

Then the factors of rhythm training in solfeggio teaching are investigated. Among them, the main aspects of training include the sense of speed, the sense of rhythm, the type of rhythm, the complexity of single voice and the complexity of multiple voice.

Finally, the training direction of music rhythm sense is investigated. In the training direction, it is necessary to establish a uniform sense of rhythm, cultivate a stable sense of speed, grasp the law of combination of sound values, and develop a keen sense of rhythm.

3.3 Investigation Process

The teacher was interviewed, and the students were polled in the form of questionnaires and interviews. In the process of this questionnaire survey, the inapplicable questions were screened and excluded, and the stratified method was used for sampling survey. The survey involved 180 students and 10 teachers. Among them, the questionnaire of 120 junior students and 60 senior students is the main analysis object. After sorting out the questionnaires, 165 valid questionnaires were obtained.

4. Evaluation Results

4.1 Functional Function of Music Rhythm

Music rhythm is a kind of regular rhythm, which can be said to be changed according to different notes in the music, and this change would also make the music have corresponding rhythmic feeling. Through the analysis of different music styles, people can express the effect of rhythmic beauty and emotional beauty that the music should show.

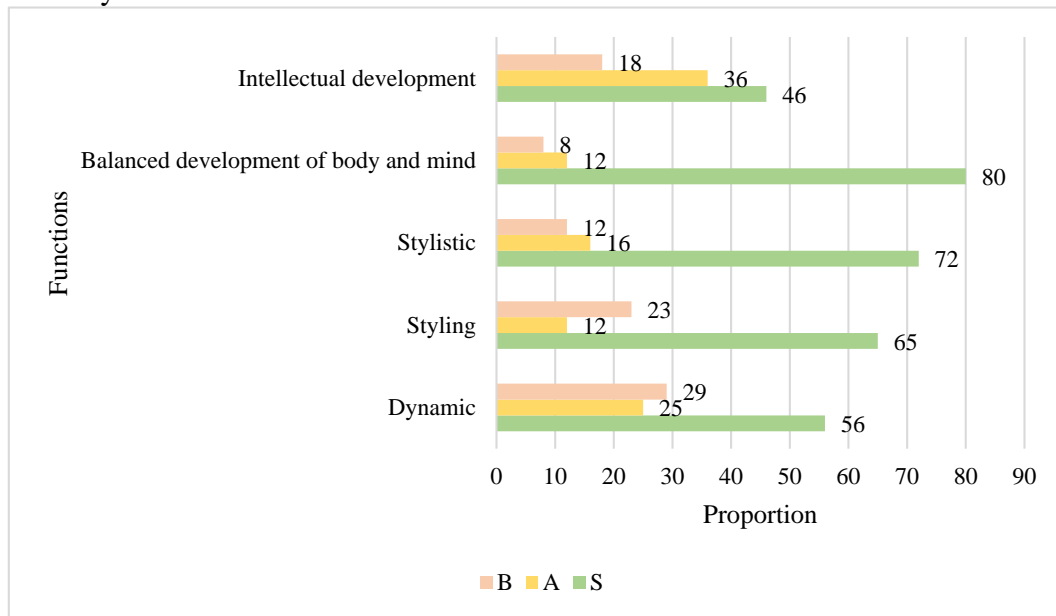


Figure 2: The functional function of music rhythm

As shown in Figure 2, in terms of motivation, 56% of respondents believed that the motivation of folk music was one of the most important functions. In terms of modeling, 65% of the respondents said that music rhythm can very effectively shape the image of characters and music impression. In terms of style, most respondents agreed that the change of rhythm reflected the change of music style. In addition, many people believed that the rhythm of music can sometimes make people happy and calm, and sometimes make people sad and depressed, so it can affect people's emotions and improve people's physical and mental balance from the side.

4.2 Rhythm Training in Solfeggio Teaching

In solfeggio teaching, the training of basic rhythm is indispensable. The types of rhythm training are mainly divided into two types: single sentence type and complex sentence type. It systematically and purposefully grasps the basic knowledge and skills of various intervals and beats. When learning music, it is necessary to grasp the overall melody lines and strength marks of the music, as shown in Figure 3:

As shown in Figure 3, in terms of speed sense, 58% of respondents believed that speed sense was an extremely important part of rhythm training. In terms of the sense of rhythm, 45% of the respondents believed that the sense of rhythm was a part of the theme embodied in rhythm practice. In terms of rhythm type, most respondents agreed with the importance of rhythm training. In addition, many people believed that the most difficult part of rhythm training was the complexity of single voice and multiple voices.

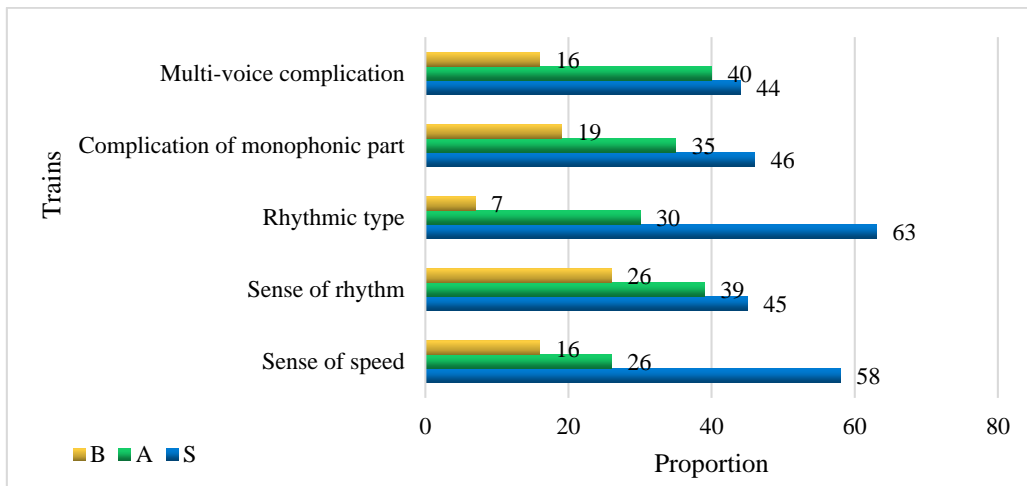


Figure 3: Rhythm training in solfeggio teaching

4.3 Training of Music Rhythm

The form of expression of the cultivation of the sense of music rhythm is produced and developed in the process of music appreciation and music creation. It expresses the emotion of the song through continuous melody changes. The rhythm of music melody makes students feel the changes of important factors such as pitch and length in the rhythm.

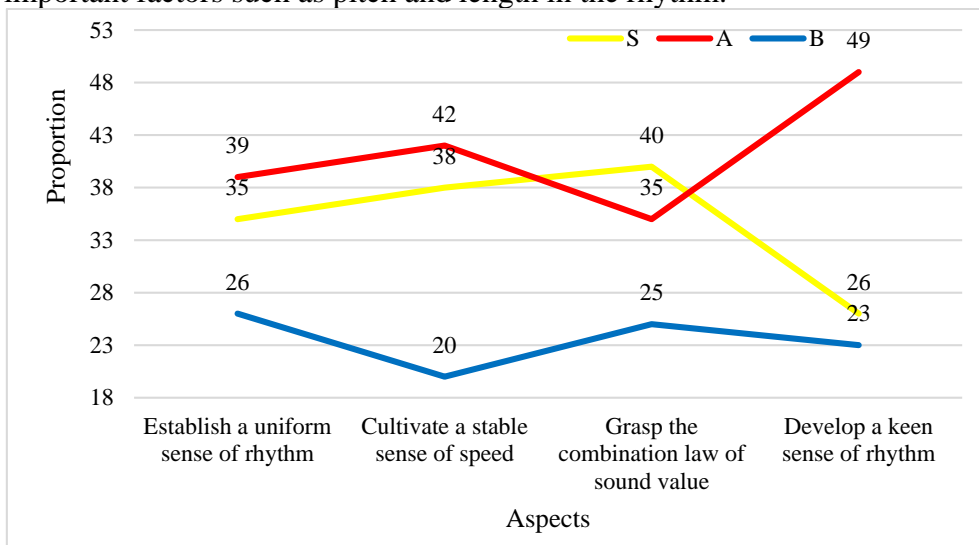


Figure 4: Training of music rhythm

As shown in Figure 4, it can be found that in terms of establishing a uniform sense of rhythm, 35% of the respondents believed that a uniform sense of rhythm played a huge role in the cultivation of musical sense of rhythm. In terms of cultivating a stable sense of speed, 38% of respondents believed that a stable sense of speed was indispensable in the cultivation of sense of rhythm. In terms of grasping the rule of combination of sound value, 40% of the respondents agreed with the role of the rule of combination of sound value in the cultivation of sense of rhythm. 49% of people believed that developing a sharp sense of rhythm was the ultimate goal of rhythm training.

5. Conclusions

The development of Chinese national vocal music works is constantly improved with the change of time and space. The rhythm and law of Chinese national vocal music works are closely linked. People have higher and higher enthusiasm and pursuit for music and art. From the perspective of music form, Chinese national vocal music works exist in people's life in a unique and full of vitality and tension, strong appeal and expressive form. In vocal music singing, only by mastering the accurate breathing rhythm can people better control and handle the sound produced during singing. In vocal music works, it is very important to grasp the rhythm.

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